

In the Claims:

Please cancel without prejudice claims 9 to 12, 16 and 17 as follows:

Claims 1 to 17 (canceled).

18(previously presented). A measurement procedure for detecting agents in a gaseous or liquid medium and/or measuring concentrations of said agents in said gaseous or liquid medium, said procedure comprising the steps of:

a) providing a measuring probe comprising a sensor-active solid layer (4) which reacts to adsorption of agent molecules from a gas or liquid containing the agent molecules by changing electrical properties of the sensor-active solid layer (4); a liquid covering film (7) arranged between said gas or liquid and said sensor-active solid layer (4) so as to cover said sensor-active solid layer (4), said liquid covering film (7) being formed from said gas or liquid; and a plurality of said electrodes (2) arranged in contact with said sensor-active solid layer (4) for measuring electrical conductance changes due to presence of said agent molecules in said gas or liquid;

b) doping a surface of the measuring probe (1) reversibly with said agent molecules by adsorbing said agent molecules on said surface, so that an active surface is formed, whereby said electrical conductance changes due to the presence of said agent molecules in said gas or liquid occur;

c) measuring said electrical conductance changes with the measuring probe provided in step a), wherein total electrical conductance measured by the

measuring probe comprises partial conductances of the solid layer (4), the liquid covering film (7), the active surface (8) and the gas or liquid, without compensation; and

d) after prior calibration, determining the agents and/or the concentrations of the agents from said electrical conductance changes measured with said measuring probe.

19(previously presented). The measurement procedure as defined in claim 18, further comprising transmitting measurement results of said measuring over EDP networks and/or by telecommunications devices to authorized recipients.